

Appl. No.: 10/815,460
Amdt. dated 06/16/2005
Reply to Office action of March 21, 2005

REMARKS/ARGUMENTS

Reexamination and reconsideration of this Application, withdrawal of the rejection, and formal notification of the allowability of all claims as now presented are earnestly solicited in light of the remarks that follow. Claims 1, 7-13, and 19-28 are pending in the application. New claims 19-28 have been added herein. The new claims are fully supported by the specification, such as on pages 7 and 9-11. Applicant submits that no new matter is introduced by these amendments. Non-elected claims 2-6 and 14-18 have been cancelled without prejudice or disclaimer.

Applicant confirms election of Group I comprising claims 1 and 7-13. Applicant also confirms election of the species of claim 9 and PTFE homopolymer of claim 10. As correctly noted by the Examiner, this election results in the withdrawal of claim 11. However, Applicant submits that claim 8 should not be withdrawn since the elected low friction particles of claims 9 and 10 are encompassed by the subject matter of claim 8. Claim 8 specifies that the particles are formed of a fluoropolymer. Claim 9 depends from claim 8 and specifies that the fluoropolymer is non-thermoplastic. Claim 10 depends from claim 9 and recites certain specific non-thermoplastic fluoropolymers. While Applicant has elected a non-thermoplastic fluoropolymer as recited in claims 9-10, Applicant notes that such a fluoropolymer is still within the scope of claim 8. For this reason, Applicant respectfully submits that claim 8 should not be withdrawn at this time.

Applicant traverses on the ground that a combined search and examination of all species and all claims can be conducted without serious burden to the Examiner. As set forth in MPEP §803, under such circumstances, restriction is improper. If the election of species requirement is maintained, Applicants note that consideration of additional species should take place upon the allowance of a generic claim as provided by 37 C.F.R. §1.141.

The present invention is directed to a fiber having an exposed surface wherein at least a portion of the exposed surface is formed of a biodegradable synthetic polymer and a plurality of low friction particles. As noted in the specification, the present invention provides surprising and unique advantages that overcome limitations associated with conventional polyester fiberfill known in the art. For example, the use of biodegradable polymer, such as PLA, offers

Appl. No.: 10/815,460

Amdt. dated 06/16/2005

Reply to Office action of March 21, 2005

numerous advantages, including biodegradability and excellent resilience. Such fibers also exhibit inherently low flammability, smoke generation, and heat release as compared to conventional polyester fiberfill. However, PLA fibers exhibit significantly higher fiber-to-fiber friction than PET and other conventional polyester fiberfill materials. Applicant has discovered that excellent fiberfill biodegradable polymer-based fibers can be formed with low fiber-to-fiber friction without resorting to flammable liquid coatings. Instead, low friction particles are incorporated into at least a portion of the surface area of the fiber. The prior art fails to teach or suggest the formation of such fibers as explained in greater detail below.

Claims 1, 7, 9, 10, 12, and 13 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,451,914 to Kloos. The Examiner alleges that the Kloos reference describes a textile fiber material comprising a mixture of a polymer component such as PET and PTFE particles. Applicant respectfully traverses this rejection.

All of the claims implicated in this rejection recite a fiber having an exposed surface wherein a portion of the exposed surface of the fiber is formed by a biodegradable synthetic polymer, such as polylactic acid (see independent claims 1 and 13). In contrast, the Kloos reference only suggests use of conventional fiber-forming polymer components such as various polyolefins, polyesters, or polyamides (column 2, lines 20-24). The only exemplified fiber-forming polymers in the Kloos reference are polypropylene and PET, which are conventional, non-biodegradable polymers (Examples 1-9). There is no suggestion in the Kloos reference to form a fiber wherein the surface comprises both a biodegradable synthetic polymer and a plurality of low friction particles. For this reason, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Claims 1, 7, 9, 10, 12, and 13 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,165,993 to van Anholt. The Examiner relies upon the van Anholt reference as disclosing a yarn wherein PTFE particles are incorporated therein over the surface of the fibers. Applicant respectfully traverses this rejection.

The van Anholt reference suffers from the same deficiency as noted above with respect to the Kloos reference. Specifically, the van Anholt reference fails to teach or suggest the use of any biodegradable synthetic polymers as recited in Applicant's pending claims. Instead, the van

Appl. No.: 10/815,460
Amdt. dated 06/16/2005
Reply to Office action of March 21, 2005

Anholt reference is only directed to yarns made from wholly aromatic polyamides (see column 1, lines 10-16). For this reason, Applicant respectfully submits that the cited patent fails to anticipate the claimed invention and respectfully requests reconsideration and withdrawal of this rejection.

Claims 1, 7, 9, 10, 12, and 13 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,340,443 to Kurihara. The Examiner relies upon the Kurihara reference as teaching a fiber made from a polyester and PTFE particles. Applicant respectfully traverses this rejection.

Applicant submits that the Kurihara reference suffers from the same deficiency noted above with respect to the other cited references of record. Specifically, the Kurihara patent is also directed only to combinations of PTFE particles and conventional non-biodegradable fiber-forming polymers. The Kurihara reference requires the use of non-biodegradable polyesters, such as polyesters formed of repeating units of ethylene terephthalate, butylene terephthalate, or ethylene naphthalate (column 2, lines 47-59). Thus, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Claim 13 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the Snyder or Halm patents, taken with any one of Kurihara, van Anholt, or Kloos. The Examiner alleges that the Snyder and Halm references teach a polyester fiberfill that is slickened on the surface. Based on this teaching, the Examiner opines that one of ordinary skill in the art would be motivated by any of Kloos, van Anholt, or Kurihara to incorporate PTFE particles on the surface of the fiber in order to reduce friction. Applicant respectfully traverses this rejection.

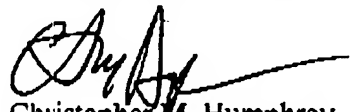
As noted above, each of Kloos, van Anholt, and Kurihara fail to teach or suggest Applicant's claimed invention. Most notably, none of those three references teach or suggest the use of a biodegradable synthetic polymer mixed with low friction particles on the surface of the fibers as recited in Applicant's present invention. The Snyder and Halm references similarly fail to teach or suggest the use of biodegradable polymers of the type contemplated in Applicant's present invention. Instead, both references discuss conventional polyester fiberfill materials. For these reasons, Applicant respectfully requests reconsideration and withdrawal of this rejection as well.

Appl. No.: 10/815,460
Amdt. dated 06/16/2005
Reply to Office action of March 21, 2005

It is believed that all pending claims are now in condition for immediate allowance. It is requested that the Examiner telephone the undersigned should the Examiner have any comments or suggestions in order to expedite examination of this case.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

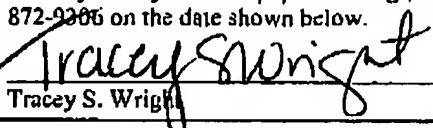
Respectfully submitted,


Christopher M. Humphrey
Registration No. 43,683

Customer No. 00826
ALSTON & BIRD LLP
Bank of America Plaza
101 South Tryon Street, Suite 4000
Charlotte, NC 28280-4000
Tel Raleigh Office (919) 862-2200
Fax Raleigh Office (919) 862-2260

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the US Patent and Trademark Office at Fax No. (703) 872-2206 on the date shown below.


Tracey S. Wright

6/16/05
Date